

TAB 47

RESALE/UNE AUDIT RESULTSProduct: TouchStar® Service - Call SelectorProject Manager: Donna BowmanDate of Audit: March, 1997

AUDIT FINDINGS: Verified that this service is billing correctly. Customer records reviewed to determine that RESH FID and RESCN USOC appear on the customer record. Verified that OLEC discount is being applied correctly.

Sign-Off: Project Manager

Donna Bowman

Director

Sharon E. Edmister

TAB 48

RESALE/UNE AUDIT RESULTSProduct: TouchStar® Service - Call TracingProject Manager: Donna BowmanDate of Audit: March, 1997

AUDIT FINDINGS: Verified that this service is billing correctly. Customer records reviewed to determine that RESH FID and RESCN USOC appear on the customer record. Verified that OLEC discount is being applied correctly.

Sign-Off: Project Manager

Donna Bowman

Director

Sharon L. Lutz

TAB 49

RESALE/UNE AUDIT RESULTS

Product: TouchStar® Service - Preferred Call Forwarding

Project Manager: Donna Bowman

Date of Audit: March, 1997

AUDIT FINDINGS: Verified that this service is billing correctly. Customer records reviewed to determine that RESH FID and RESCN USOC appear on the customer record. Verified that OLEC discount is being applied correctly.

Sign-Off: Project Manager

Donna Bowman

Director

Sharon Estenidge

TAB 50

RESALE/UNE AUDIT RESULTSProduct: TouchStar® Service - Repeat DialingProject Manager: Donna BowmanDate of Audit: March, 1997

AUDIT FINDINGS: Verified that this service is billing correctly. Customer records reviewed to determine that RESH FID and RESCN USOC appear on the customer record. Verified that OLEC discount is being applied correctly.

Sign-Off: Project Manager

Donna Bowman

Director

Sharon Easton Edge

TAB 51

RESALE/UNE AUDIT RESULTS

Product: Touch-Tone

Project Manager: Linda Wong

Date of Audit: March, 1997

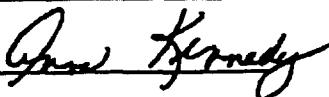
AUDIT FINDINGS: Verified that this service is billing correctly. Customer records reviewed to determine that RESH FID and RESCN USOC appear on the customer record. Verified that OLEC discount is being applied correctly.

Sign-Off: Project Manager Linda Wong (electronic signature)
Director Sharon Etheridge (electronic signature)

TAB 52

RESALE/UNE AUDIT RESULTS

Product: Visual Director

Project Manager: Anne Kennedy 

Date of Audit: 3/21/97

AUDIT FINDINGS:

The following ETET orders were issued by the LCSC on 3/21/97:

VDRCN 404-Q90-3999 1FB 404-872-3227

VDRCW 205-Q80-3999 1FR 205-972-8689

**REPLY TO COMMENTS ON BELL SOUTH'S APPLICATION
FOR SECTION 271 AUTHORITY IN SOUTH CAROLINA**

Declaration on Behalf of BellSouth

by

Richard L. Schmalensee

November 14, 1997

TABLE OF CONTENTS

I.	Introduction	1
II.	The Residential Long Distance Market Is Not Fully Competitive	3
A.	Professors Hubbard and Lehr Regarding the Residential Long Distance Market	3
B.	Professor Hall Regarding the Residential Long Distance Market	9
III.	Carrier Access Rates Above Costs Will Not Harm Competition	15
A.	Professors Baseman and Warren-Boulton Regarding Access Charges	16
B.	Professor Baumol Regarding Access Charges	19
C.	Professor Hall Regarding Access Charges	20
D.	Professors Hubbard and Lehr Regarding Access Charges	21
E.	Professor Schwartz Regarding Access Charges	22
F.	Professor Shapiro Regarding Access Charges	23

DECLARATION OF RICHARD L. SCHMALENSEE

I. INTRODUCTION

1. My name is Richard L. Schmalensee. I submitted a declaration earlier in this proceeding, which included my *vitae*.¹

2. Counsel for BellSouth has asked me to review comments by economists as they relate to the public interest standard of the Telecommunications Act of 1996 ("the Act") for BellSouth's entry into the long distance market in South Carolina. These economists are Kenneth D. Baseman and Frederick R. Warren-Boulton (for MCI), William J. Baumol (for AT&T), Robert E. Hall (for MCI), R. Glenn Hubbard and William H. Lehr (for AT&T), Marius Schwartz (for the Department of Justice), and Carl Shapiro (for Sprint).² Here I report on the results of my review.

3. In this report, I focus on the issues that were the primary concern of my original declaration³—the current state of competition in the long distance market and the effect on

¹ Richard L. Schmalensee, "BellSouth's Prospects for Success in the InterLATA Market," Declaration on Behalf of BellSouth, CC Docket No. 97-208 (August 18, 1997).

² Declaration of Kenneth C. Baseman and Frederick R. Warren-Boulton on Behalf of MCI Telecommunications Corporation, MCI Exhibit E, CC Docket No. 97-208 (October 20, 1997); Affidavit of William J. Baumol on Behalf of AT&T Corp., AT&T Exhibit A, CC Docket No. 97-208 (October 20, 1997); Declaration of Robert E. Hall on Behalf of MCI Telecommunications Corporation, MCI Exhibit E, CC Docket No. 97-208 (October 20, 1997); Affidavit of R. Glenn Hubbard and William H. Lehr on Behalf of AT&T Corp., AT&T Exhibit A, CC Docket No. 97-208 (October 20, 1997); Marius Schwartz, "The 'Open Local Market Standard' for Authorizing BOC InterLATA Entry: Reply to BOC Criticisms, Supplemental Affidavit on Behalf of the U.S. Department of Justice, CC Docket No. 97-208 (November 7, 1997); Declaration of Carl Shapiro on Behalf of Sprint, CC Docket No. 97-208 (October 20, 1997).

³ I do, however, have to respond to a comment by Professor Hall that is outside the scope of my declaration. I have presented evidence from the cellular market showing that the Bell Operating Companies have been unwilling or unable to distort competition in that market. (P. S. Brandon and R. L. Schmalensee, "The Benefits of Releasing the Bell Companies from the Interexchange Restrictions," *Managerial and Decision Economics*, Vol. 16, No. 4 (July-August 1995), pp. 349-364) Professor Hall implies that he agrees. However, dismisses the
(continued...)

competition of having carrier access charges set above costs.⁴ My principal conclusions are the following:

- In response to my evidence that AT&T charges full basic rates for most of its residential customers and that AT&T has been increasing the average rates paid by its residential customers, the incumbent long distance carriers' economists reply either with irrelevant and misleading data (*e.g.*, data which combine both residential and business customers), or they simply assert that the market structure implies that the market must be competitive. I stand by my findings.
- In my declaration, I found that AT&T's current long distance rates for residential customers significantly exceed costs. Some comments argued that the market structure implies that the market must be competitive, so my findings must be wrong. Professors Hubbard and Lehr present alternative estimates of price-cost margins. With one minor concession, I stand by my original findings.
- In my declaration, I disproved the naïve price squeeze argument; I showed that, even if carrier access charges are priced above costs, a local exchange carrier cannot increase access profits if its long distance affiliate were to take toll demand away from a rival. I have found that most, but not all, of the commenters understand this point.
- Most commenters also appear to understand that a local exchange carrier would increase profits by having its long distance affiliate cause an expansion in industry output. However, most of them miss the point that such an expansion would increase economic welfare, and they misinterpret the effect as an undesirable competitive advantage.

(...continued)

relevance of that evidence by claiming that cellular markets were at capacity. His claim is false. Cellular companies can and do increase capacity continually by adding cell sites or by deploying digital technology.

⁴ My original declaration also explained BellSouth's strengths as a competitor in the long distance market. Since I found no challenge to these findings, I need not deal with them here.

4. In Section II, I discuss the comments relating to the competitiveness of the residential long distance market. Section III deals with the access charge issues.

II. THE RESIDENTIAL LONG DISTANCE MARKET IS NOT FULLY COMPETITIVE

5. In my declaration, I presented data which showed the following:

- “AT&T raised its interstate basic rates by 22 percent between 1993 and 1996, even though average access charges for the interexchange carriers fell by nine percent in that period.” (Declaration, ¶ 9)
- Even accounting for discount calling plans, the average rate paid by AT&T’s residential customers increased 12 percent in that period. (Declaration, ¶ 11)
- As of 1996, 62 percent of AT&T’s residential customers in the states served by BellSouth faced full basic rates. (Declaration, ¶ 10)
- AT&T’s rates exceed its costs for a substantial portion of its residential customers. (Declaration, ¶¶ 15)
- AT&T’s price-cost margin for residential customers as a whole is about 8 cents per minute.

6. No one effectively refuted these findings. Instead, they either report statistics that miss the point or give comments that are misleading, as I explain below.

A. Professors Hubbard and Lehr Regarding the Residential Long Distance Market

7. Professors Hubbard and Lehr report an index of AT&T’s annual interstate average revenue per minute net of access from 1984 to 1996. (Hubbard and Lehr, Figure 3) Even their own data show an increase in rates net of access from 1995 to 1996. But there are at least two reasons to dismiss the relevance of their data to my point. First, their data combine residential and business customers. It is plausible that AT&T reduced rates relative to access charges for business customers. (See below.) In fact, business customers were the principal beneficiaries

of competition for long distance services. Yet, as Professor Baumol points out, the interests of smaller business and residential customers “should be the prime concern of regulation.”

(Baumol, ¶ 22) Second, even data on average revenue per minute for residential and business combined gives a highly misleading picture of rate changes. In the 1980s, AT&T increased its private line rates relative to its rates for switched services. In response, as large business customers migrated from private line services to heavily volume-discounted switched services, the average revenue per minute for switched services as a whole would have fallen even if AT&T had not reduced switched service prices.

8. Professors Hubbard and Lehr also show an annual index of average revenue per minute, deflated for inflation, for what they call consumer dial direct long distance, business outbound domestic toll, and business inbound domestic toll. (Hubbard and Lehr, Figure 4) I assume that these data are also for interstate services. I interpret business outbound domestic toll to be WATS and Megacom, and I interpret business inbound domestic toll to be 800 service. I cannot tell with confidence how to interpret what they call “consumer dial direct long distance,” which might be for residential customers alone or might be for all message toll service customers—residential and business combined. The latter interpretation is more likely, since they say that the figure with all three data series shows “benefits to *all* types of *consumers*.” (Hubbard and Lehr, ¶ 31, emphasis added) In other words, they use the term “consumers” to include both business and residential customers. What this figure does verify is my statement above that business customers have benefited much more from competition than have customers paying message toll rates. They show that AT&T’s average revenue per minute declined much more for WATS and for 800 service than it did for message toll service.

9. Do their data refute my findings that AT&T’s residential customers paid more in 1996 than they did in 1993, even as access charges fell? No, for several reasons. First, even though another of their figures extends through 1996 (and shows an increase in rates net of access from

1995 to 1996).⁵ the figure with so-called “consumer” dial direct long distance ends in 1995. before AT&T’s two rate increases in 1996 of 4.3 percent and 5.9 percent.⁶ Second, as I mention above, it is not clear that their data series for what they call “consumer” dial direct long distance is really for residential customers only; it is more likely to be for residential and business customers combined. Third, since that series is for “dial direct,” it excludes any increases in directory assistance, calling card and other operator-assisted services, for which residential customers also pay. Fourth, although it shows decreases in real average revenue per minute, it is not net of access charges, so it does not show that rates decreased as much as access charges decreased.

10. Professors Hubbard and Lehr go on to display AT&T prices for customers with three different volumes of usage. (Hubbard and Lehr, Figure 5) They claim that their figure “demonstrates that all classes of residential customers—both high and low usage—benefited from these price declines.” (Hubbard and Lehr, ¶ 31) In one sense, I find their Figure 5 gratifying, because it verifies my finding that AT&T increased its basic rates from 1993 to 1996. It even shows an additional rate increase from 1992 to 1993 that I did not mention.

11. In another sense, their figure is grossly misleading. Elsewhere in their comments, Professors Hubbard and Lehr state the following: “Because it is a complex task to compare complex baskets of services . . . we advocate focusing on the actual prices consumers pay as measured by the average revenue per minute realized by long distance carriers.” (Hubbard and Lehr, ¶ 32. Also see ¶ 119) Yet, contrary to their own position, their Figure 5 presents not

⁵ Hubbard and Lehr, Figure 3.

⁶ Regarding the February 1996 increase, see “AT&T to Raise Basic Prices an Average 40c a Month,” *Bloomberg News Services*, February 16, 1996; see also “AT&T Increases Basic Rates, Extends Discount Plans,” *Telecommunications Reports*, February 26, 1996, p. 27. Regarding the December 1996 increase, see “AT&T Follows MCI, Sprint with Long Distance Rate Increases,” *Telecommunications Reports*, December 2, 1996. Professors Hubbard and Lehr criticize Professor MacAvoy for selectively choosing starting and stopping dates for his time series, yet they appear to have done so themselves.

actual customer costs per minute but the best rate available to a customer in each usage group.⁷ A crucial point I made in my declaration is that AT&T has raised basic rates, knowing that only a minority of its residential customers takes optional calling plans. The costs to consumers of obtaining information and making a decision to take an optional calling plan are an important part of the market structure that determines market behavior and performance. Ignoring this fact will lead to invalid conclusions.

12. Professors Hubbard and Lehr also offer comments on my declaration specifically. First, they say that increases in long distance carriers' costs other than access "may offset any savings associated with reductions in access charges." (Hubbard and Lehr, ¶ 119) Although what they say is a theoretical possibility, they present no evidence that it is true, and my declaration presented unrefuted evidence that it was not true in the past and is thus unlikely to be true in more recent years. (Declaration, ¶ 9) Further, their data show that AT&T's non-access costs per minute fell between 1988 and 1994, which verifies my evidence on the subject. (Hubbard and Lehr, Figure 7)

13. Second, they repeat their position that average revenue per minute is "a superior summary statistic for assessing price trends." (Hubbard and Lehr, ¶ 119) Their reason for thinking so is that "There may be changes in demand patterns that make it difficult to associate reductions in access charges directly to changes in tariffed prices." (Hubbard and Lehr, ¶ 119) Yet their position contradicts the standard theory of price indices. The possibility of changes in demand patterns is a *disadvantage* of using average revenue per minute as a measure of price changes, as Professor Hall acknowledges. (Hall, ¶ 127)

14. The backup position of Professors Hubbard and Lehr—that, lacking data on average revenue per minute, one should use "the least-cost options for delivering service to each

⁷ Although their text does not admit it, it is obvious that the figure portrays merely "best available" rates rather than average revenue per minute: the rate for the low-usage group is exactly 15 cents in 1997, when AT&T introduced its One Rate Plan with that rate. Clearly, less than 100 percent of AT&T's low-usage customers have signed up for that plan.

category of consumer” (Hubbard and Lehr ¶ 119)—is indefensible in this market. When would such an approach be useful? I can think of two situations. The first situation is where one could anticipate with confidence that any new superior calling plan would promptly attract almost all of the eligible consumers. The second situation is where the service providers automatically shifted every consumer to the cost-minimizing plan for that consumer each month. Neither of those situations describes the current long distance market. As I mentioned in my declaration, the fraction of AT&T residential customers subscribing to calling plans has increased by an average of only 4.5 percentage points per year. (Declaration, ¶ 14)

15. Third, they claim that they refuted my finding that AT&T increased rates paid by residential customers. (Hubbard and Lehr, ¶ 119) Yet, as I show above, they did no such thing.

16. Fourth, they object that I overestimated margins in long distance. They say, “he fails to explain why margins of this magnitude—if actually realized—would fail to attract significant entry from the many potential entrants into long distance services.” (Hubbard and Lehr, ¶ 121) To the contrary, I explained that such profit opportunities *are* causing the expansion of the small-carrier group at AT&T’s expense. (Declaration, ¶ 9) I should also note that I used AT&T’s and Professor Hall’s *own* data to show that prices are above costs for a large portion of AT&T’s residential customers. To calculate profit margins, I used the technique for estimating costs suggested by Professor Hall: find the lowest prices charged by the long distance carriers. (Hall, ¶ 147) Professors Hubbard and Lehr present an alternative cost estimate of 14 cents per minute, but they do not reveal how they get their estimate. (Hubbard and Lehr, ¶ 122) If they are correct that industry costs are 14 cents per minute, then they are faced with an unexplained quandary: how can Frontier, Unidial, and Wiltel all survive with prices of 9.9 cents per minute to 10.9 cents per minute, with no monthly fee and no minimum charge? (Hall, ¶ 139) I am convinced that those smaller carriers can have costs no greater than about 10 cents per minute. They are clearly betting the firm that their costs are no higher than what they charge.

17. Professors Hubbard and Lehr also report that AT&T’s average revenue per minute in 1996 for all switched services was 16.9 cents per minute. (Since this figure is for all switched services, it includes both business and residential customers.) If so, then AT&T’s average

revenue per minute for residential customers should be in the same neighborhood or even higher. Although residential customers make more of their calls in off-peak periods than business customers do, residential customers receive much smaller discounts from basic rates than business customers do on average. That figure of 16.9 cents per minute is close to the figure of 18 cents per minute that I assumed in my profit margin calculations. To be conservative, let us assume for present purposes a profit margin of 6.9 cents per minute (16.9 cents minus 10 cents per minute), or 69 percent of industry costs. This conservative assumption does not change my qualitative conclusions. It is difficult to maintain the hypothesis that the long distance market is effectively competitive or that entry by a strong competitor would not cause a reduction in market prices when profit margins are so high. I return to the issue of AT&T's costs below.

18. Professors Hubbard and Lehr object to my discussion of the trends in long distance market shares. (Hubbard and Lehr, ¶ 120) I am baffled as to why they say that I claim that stable market shares are conducive or a precondition for collusion. My declaration reported that the share of the carriers other than the Big Three has been growing and that AT&T's share has been declining. (Declaration, ¶ 8) Clearly, the smaller carriers must be growing because there is a profit opportunity for them. I also explained that I infer that their profit opportunity derives from AT&T's setting supracompetitive retail prices, based on my analyses elsewhere in the declaration. (But also see the discussion in the next paragraph.) MCI's and Sprint's market shares have remained stable for several years, which suggests that, in spite of the profit opportunity offered by AT&T, they have decided that they would rather reap higher current profits with stable market shares than to risk disturbing the market's profitable price structure by pursuing increased market share. If AT&T is charging supracompetitive prices, and if MCI and Sprint are refraining from exploiting that profit opportunity by expanding their shares, then it calls for additional entry from BellSouth and other RBOCs to compete down the supracompetitive price levels, thereby increasing economic welfare.

19. Professor Hall suggests an alternative explanation to mine regarding why the smaller carriers are growing at the expense of AT&T. He suggests that the smaller carriers have lower

costs than AT&T. (Hall, ¶ 204) That hypothesis might be true. Professors Hubbard and Lehr estimate that AT&T's average costs are about 14 cents per minute. (Hubbard and Lehr, ¶ 122) In contrast, as Professor Hall points out (Hall ¶ 139) and as I highlight above, some of the resellers charge rates as low as about 10 cents per minute, with no minimum charge and no monthly subscription fee. Therefore, I concede the possibility that AT&T's costs substantially exceed those of smaller carriers. If so, this gross inefficiency is a potent reason to allow BellSouth and other RBOCs into the long distance market promptly. The economic welfare gain from wringing out 40 percent excess costs from the carrier with over half the market would certainly exceed all other sources of economic gains or losses being discussed in this proceeding. Therefore, I appreciate the effort of Professors Hubbard and Lehr in estimating AT&T's costs. I hope that, in the future, they can build our confidence in their estimate by providing more details and support for their estimation procedure.

20. Thus, two alternative explanations could lead to the facts that the market share of the small carriers is growing and AT&T's is shrinking. Importantly, regardless of which alternative explanation for the market share trends is true, the policy prescription should be the same: allow RBOC entry into the long distance market. It is gratifying for once to find a situation in which competing hypotheses yield the same policy prescription rather than conflicting policies.

B. Professor Hall Regarding the Residential Long Distance Market

21. Professor Hall also makes errors regarding pricing for residential customers. He shows that long distance prices for business and residential customers together have decreased over time. (Hall, ¶¶ 126-129) No doubt they have. That is not the issue, since local exchange carriers have been reducing access charges. He does go on to discuss changes in average revenue per minute relative to changes in access charges, but again he reports results that combine business and residential customers. (Hall, ¶¶ 132-136) Such comparisons hide the increases in rates that residential customers have paid in recent years.

22. Professor Hall confirms my finding that the incumbent long distance carriers increased basic rates in the past few years, until the local exchange carriers reduced their access charges substantially in 1997. (Hall, ¶ 137)

23. Professor Hall asserts that “most residential customers take advantage of flat-rate low-price plans.” (Hall, ¶ 142) His statement is unsupported. It is a general statement regarding residential customers in total, yet he only reports data for MCI. My declaration showed that the statement is false regarding AT&T residential customers. Since 62 percent of AT&T’s customers in BellSouth states faced full basic rates in 1996 (Declaration, ¶ 10), and, since AT&T only recently introduced flat-rate plans, it is inconceivable that by now most AT&T residential customers “take advantage of flat-rate low-price plans.” Further, the data he does report for MCI is regarding all MCI calling plans, not its flat-rate plans. Many of MCI’s calling plans are not flat-rate plans. MCI’s Friends & Family plans and its Sure-Save Reach plan instead specify discounts from basic rates. For these plans, if basic rates rise, then rates paid by subscribers to these plans also rise. In addition, MCI recently reduced the discounts it provides to Friends & Family plan subscribers.

24. Professor Hall reports that 78 percent of MCI’s residential customers subscribe to calling plans (Hall, ¶ 142), but he does not reveal what fraction of customers actually *receive* discounts or what size of discount these customers receive. The data he reports for MCI is misleading. Note his careful phrasing: “About 22 percent of MCI’s residential customers pay the standard rate—the remaining 78 percent use plans with lower rates, some of which depend on volume.” (Hall, ¶ 142) For many of MCI’s plans, unless a plan subscriber has a high volume of usage—either in total or to particular customers—then the subscriber can still pay prices that equal or exceed basic rates.⁸ In any case, Professor Hall’s statistic is of little comfort

⁸ For instance, subscribers to MCI’s Friends & Family Everywhere or Friends & Family Option C would have to make calls worth at least \$9.50 per month to receive any discounts. As another example, if a person subscribes to MCI’s AnyTime Option, they pay \$9.90 for sixty minutes of interstate calls. That amounts to 16.5 cents per minute. If one of those subscribers were to make less than 52 minutes of calling, then their average rate would exceed 18.9 cents per minute, the average direct-dialed basic rate I calculated for AT&T’s customers in the

(continued...)